

Appl. No. 10/757,124
Amdt. Dated November 18, 2004
Reply to Office Action of September 1, 2004

REMARKS

This is a full and timely response to the non-final Office action mailed September 1, 2004. Reexamination and reconsideration in view of the foregoing amendments and following remarks is respectfully solicited.

Claims 1-20 remain pending in this application, with Claims 1, 9, and 17 being the independent claims. Claims 1, 3, and 17 have been amended herein. No new matter is believed to have been added.

Before proceeding with the rejections delineated in the Office action, Applicants wish to gratefully thank Examiner Joyce for indicating that Claims 9-16 are allowed.

I. Rejections Under 35 U.S.C. § 102

Claims 1-3 were rejected under 35 U.S.C. § 102 as allegedly being anticipated by U.S. Patent No. 4,164,898 (Burgess et al.), and Claims 17-20 were rejected under 35 U.S.C. § 102 as allegedly being anticipated by any one of Burgess et al., U.S. Patent No. 4,553,474 (Wong et al.), or U.S. Patent No. 5,297,987 (Emmons et al.). These rejections are respectfully traversed.

A. Rejection of Claims 1-3

Independent Claim 1 relates to a pressure control system having an inflow unit for admitting pressurized air into a cabin of an aircraft and for regulating the air pressure within the cabin. The system includes an outflow unit, a first air pressure sensor for determining a cabin pressure level signal, a second air pressure sensor for determining an ambient pressure level signal, and a control unit coupled to receive the cabin pressure level signal and the ambient pressure level signal. Independent Claim 1 recites, *inter alia*, that the control unit, in response to these received signals is operable to "(i) compute a cabin pressure level rate of change signal based on the cabin pressure level signal, (ii) compute a commanded pressure level signal based at least in part on the ambient pressure level signal, (iii) compute a commanded pressure level rate of change signal based on the commanded pressure level signal and the cabin pressure level signal, (iv) compare the cabin pressure level rate of change signal with the commanded pressure level rate of

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change signal to thereby determine a cabin pressure rate of change error signal, and (v) generate the motor control signal based on the cabin pressure rate of change error signal.”

Burgess et al. relates to an aircraft cabin pressure control system that includes two automatic controllers, one of which is configured as the primary controller, and the other of which is the standby controller. Both controllers receive signals representative of ambient pressure and cabin pressure. The ambient pressure signal is supplied to a cabin altitude function generator, to a descent discriminator, and to ΔP limit logic. The altitude function generator uses the ambient pressure signal to compute an output voltage corresponding to a calculated value of cabin pressure, which corresponds to a commanded cabin pressure signal. The descent discriminator uses the ambient pressure signal to determine when the aircraft has begun its final descent. The ΔP limit logic compares the ambient pressure signal with the cabin pressure signal to determine the ΔP between the inside and the outside of the cabin.

The cabin pressure signal is supplied to the ΔP limit logic, to rate logic, and to a dynamic compensator. The use of the cabin pressure signal in the ΔP limit logic was just described. The rate logic compares the cabin pressure signal with the signal supplied from the altitude function generator (e.g., the commanded cabin pressure signal) to determine whether the aircraft is ascending or is in the dwell function. Based in part on this determination, the rate logic limits a manually selected rate limit to one of two values. The dynamic compensator uses the cabin pressure signal to determine the rate of change of cabin pressure and compares this to a commanded rate supplied from a rate amplifier. The commanded rate is based on a manually selected rate limit, which may be limited, as just mentioned, by the rate logic.

Hence, it is clear that Burgess et al. fails to disclose, or even remotely suggest, at least one or more of the above-noted features recited in independent Claim 1. Namely, Burgess et al. fails to disclose or suggest at least that its disclosed controller is operable to compute a commanded pressure level signal based at least in part on the ambient pressure level signal, and to compute a commanded pressure level rate of change signal based on the commanded pressure level signal and the cabin pressure level signal, as is now recited in independent Claim 1.

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In view of the above, reconsideration and withdrawal of the § 102 rejection of independent Claim 1 is respectfully requested.

B. Rejection of Claims 17-20

Independent Claim 17 relates to a method of controlling air pressure within a cabin that includes an inflow unit for supplying pressurized air to the cabin that includes the steps of sensing the air pressure within a cabin to produce a cabin pressure level signal, sensing the air pressure outside the cabin to produce an ambient pressure level signal, computing a commanded pressure level signal based on aircraft inputs signal, a user command signal, and the ambient pressure level signal, and recites, *inter alia*, computing a commanded pressure level rate of change signal from the commanded pressure level signal and the cabin pressure level signal.

As noted above, Burgess et al. fails to disclose or suggest at least computing a commanded pressure level rate of change signal from the commanded pressure level signal (which is based in part on the ambient pressure signal) and the cabin pressure level signal.

Wong et al. relates to a cabin pressure control system and method, and discloses sensing the air pressure outside the cabin to produce an ambient pressure level signal, but fails to disclose the use of this signal as recited in independent Claim 17. Specifically, Wong et al. disclose that the ambient pressure level signal is used by an auto schedule controller to compute a commanded rate of change of pressure in the aircraft cabin. However, Wong et al. fail to disclose that the ambient pressure level signal is used in determining a commanded pressure level signal, and further that the commanded rate of change of pressure is computed using both the commanded pressure level signal and the cabin pressure level signal.

As regards Emmons et al., this patent relates to an aircraft cabin pressure control system and method. However, as with both Burgess et al. and Wong et al., this patent fails to disclose, or even remotely suggest, at least computing a commanded pressure level rate of change signal from the commanded pressure level signal (which is based in part on the ambient pressure signal) and the cabin pressure level signal.

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In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the § 102 rejections of independent Claim 17 in view of Burgess et al., Wong et al., and Emmons et al.

II. Rejections Under 35 U.S.C. § 103

Claims 4-7 were rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Burgess et al. in view of Official Notice, and Claims 18-20 were rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Burgess et al., Wong et al., or Emmons et al. These rejections are respectfully traversed.

As noted above, Burgess et al. fails to disclose or suggest one or more features of both independent Claim 1 and independent Claim 17. Moreover, both Wong et al. and Emmons et al. fail to disclose or suggest at least one feature recited in independent Claim 17. As such, Burgess et al. cannot render any of dependent Claims 4-7 or 18-20 obvious, nor can either of Wong et al. or Emmons et al. render any of dependent Claims 18-20 obvious.

In view of the above, reconsideration and withdrawal of the § 103 rejections is respectfully solicited.

Conclusion

Based on the above, independent Claims 1 and 17 are patentable over the citations of record. The dependent claims are also submitted to be patentable for the reasons given above with respect to the independent claims and because each recite features which are patentable in its own right. Individual consideration of the dependent claims is respectfully solicited.

The other art of record is also not understood to disclose or suggest the inventive concept of the present invention as defined by the claims.

Hence, Applicant submits that the present application is in condition for allowance. Favorable reconsideration and withdrawal of the objections and rejections set forth in the above-noted Office Action, and an early Notice of Allowance are requested.

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If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the below-listed number.

If for some reason Applicant has not paid a sufficient fee for this response, please consider this as authorization to charge Ingrassia, Fisher & Lorenz, Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

INGRASSIA FISHER & LORENZ

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